

Stripline Total Thickness .0181 inches

Solder Mask .0010 inches		18
Copper .0007 inches	Ground	16
Polyimide .0070 inches		12
Copper .0007 inches	Signal	10
Polyimide .0070 inches		14
Copper .0007 inches	Ground	20
Solder Mask .0010 inches		22

FIG
1A

Microstrip Total Thickness .0064 inches

Solder Mask .0010 inches		36
Copper .0007 inches	Signal	32
Polyimide .0030 inches		30
Copper .0007 inches	Ground	34
Solder Mask .0010 inches		38

FIG
1B

Microstrip vs. Stripline Construction

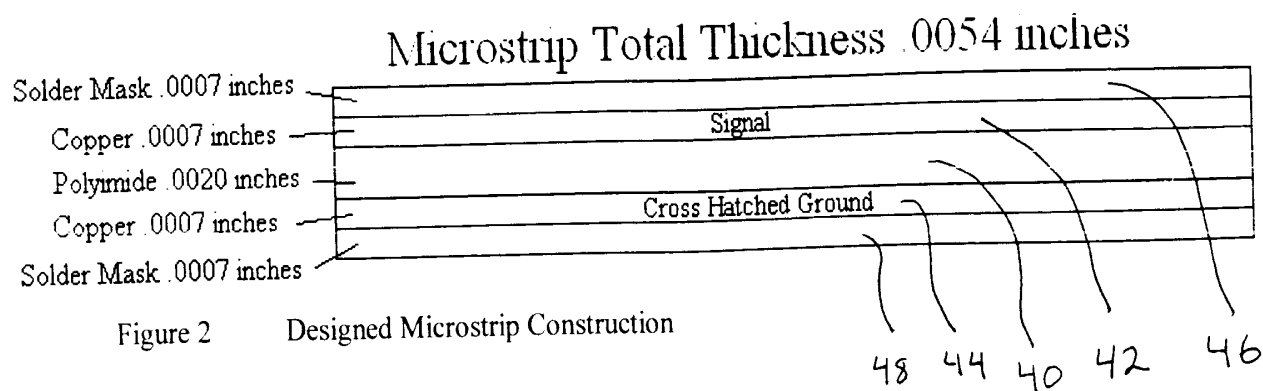


Figure 2 Designed Microstrip Construction

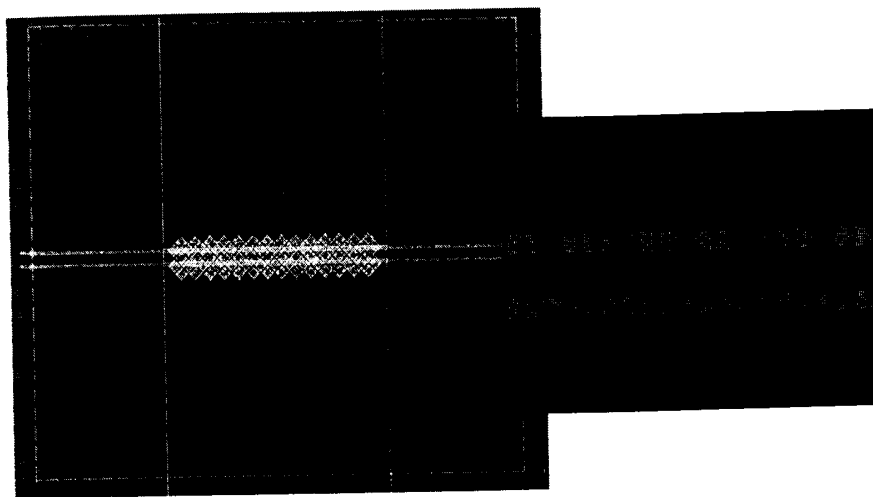


Figure 3 Simulation Set Up for 50 ohm Transmission Line

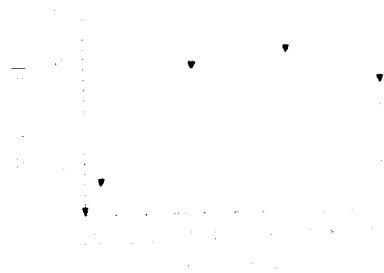


Figure 4 Simulation Results for 50 ohm Transmission Line – Amount of Reflection with a transmission line terminated with 50 ohms

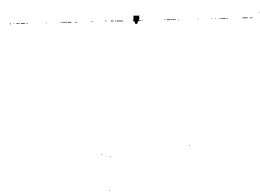


Figure 5 Simulation Results for 50 ohm Transmission Line – Amount of Reflection with a transmission line terminated with 50 ohms

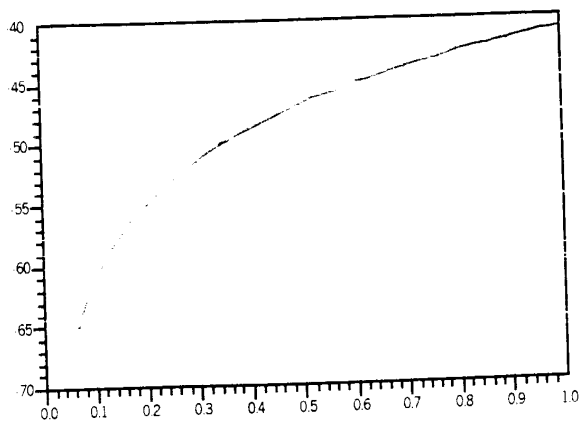


Figure 6 Simulation results for 50 ohm transmission line – Isolation between adjacent traces



Figure 7 75 ohm transmission line simulation set up

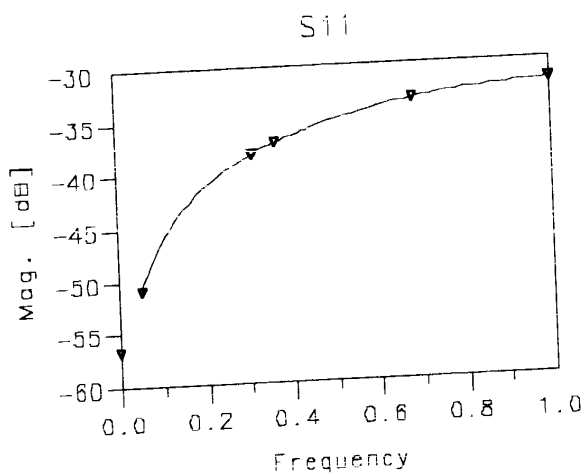


Figure 8 Simulation Results for 75 ohm Transmission Line – Amount of Reflection with a transmission line terminated with 75 ohms

Figure 9 Simulation Results for 75 ohm Transmission Line – Amount of Reflection with a transmission line terminated with 75 ohms plotted on a Smith Chart

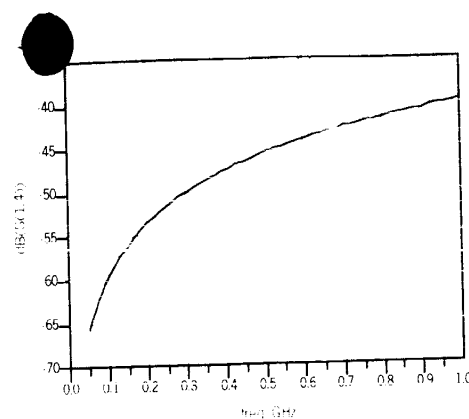


Figure 10 Simulation results for 75 ohm transmission line – Isolation between adjacent traces
The crosshatched utilized in these designs is shown in figure 11 below.

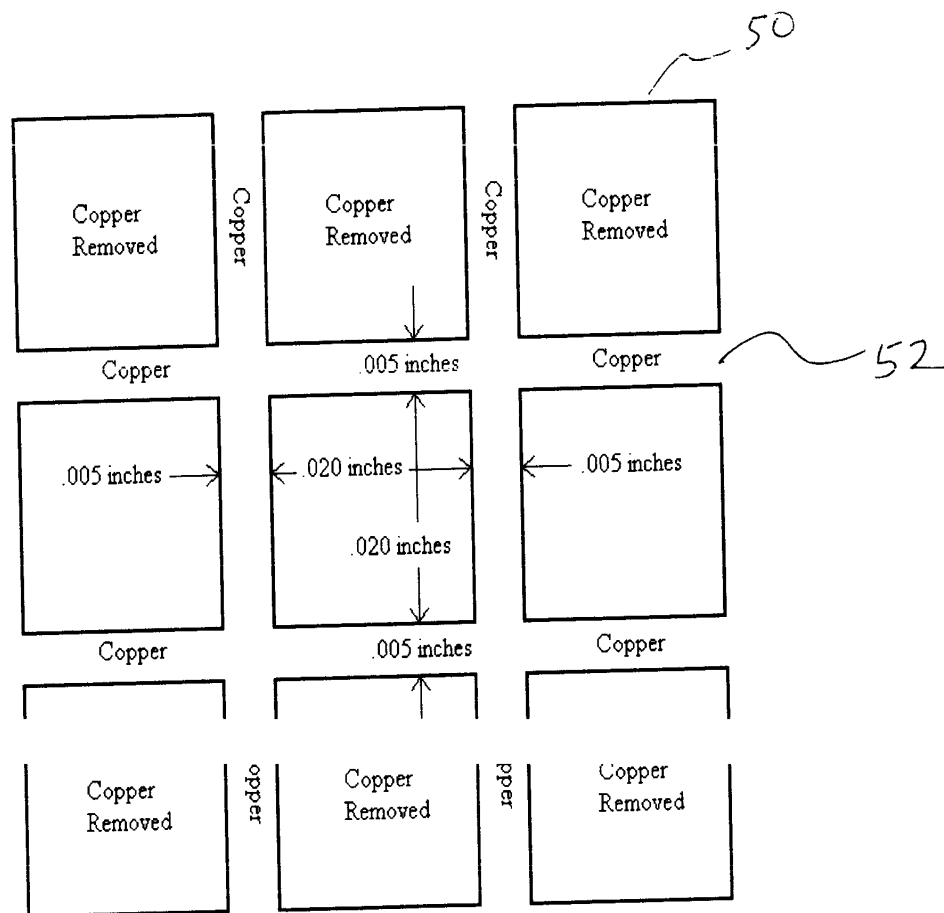


Figure 11 Cross Hatch utilized on Ground Plane

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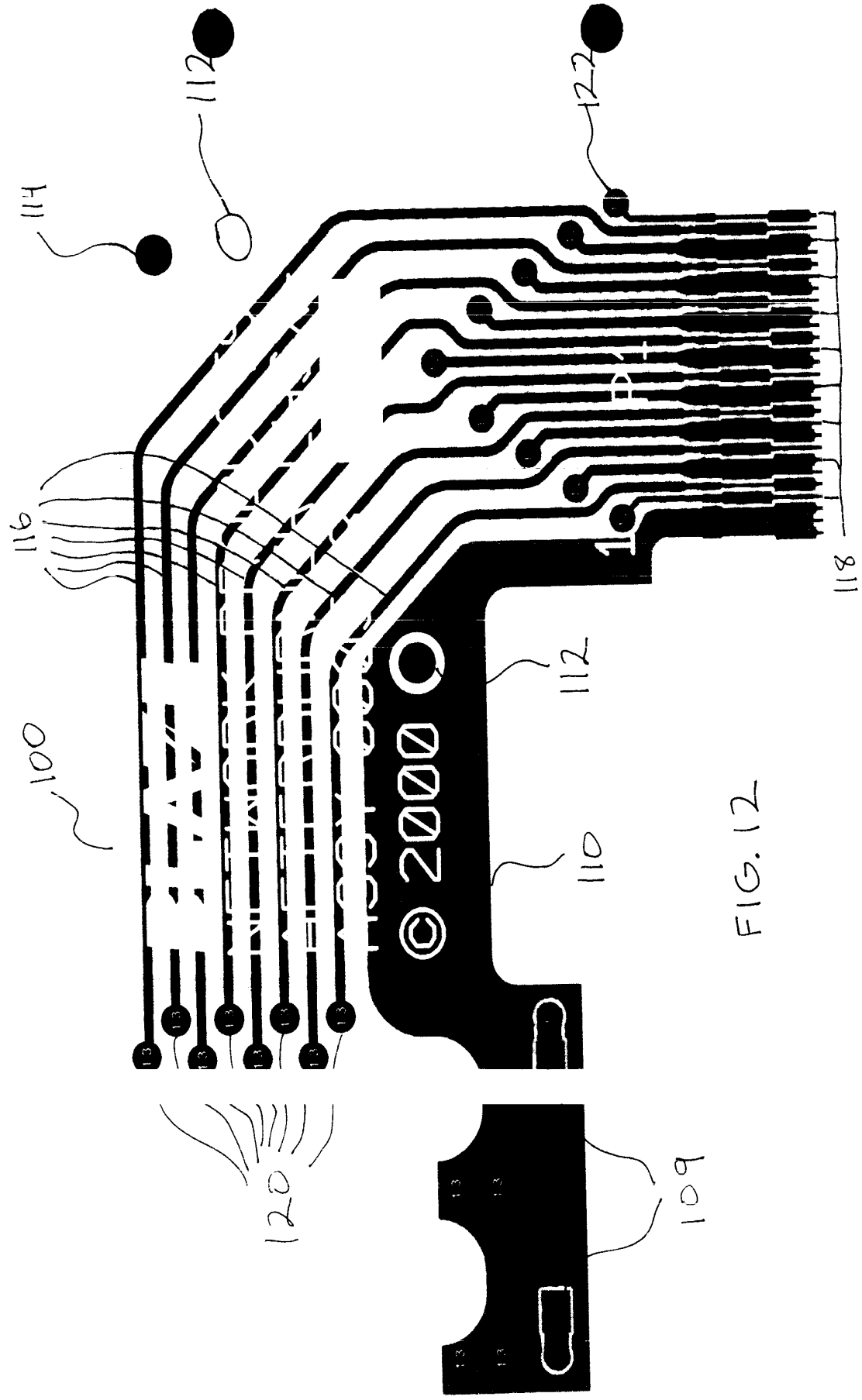


FIG. 12

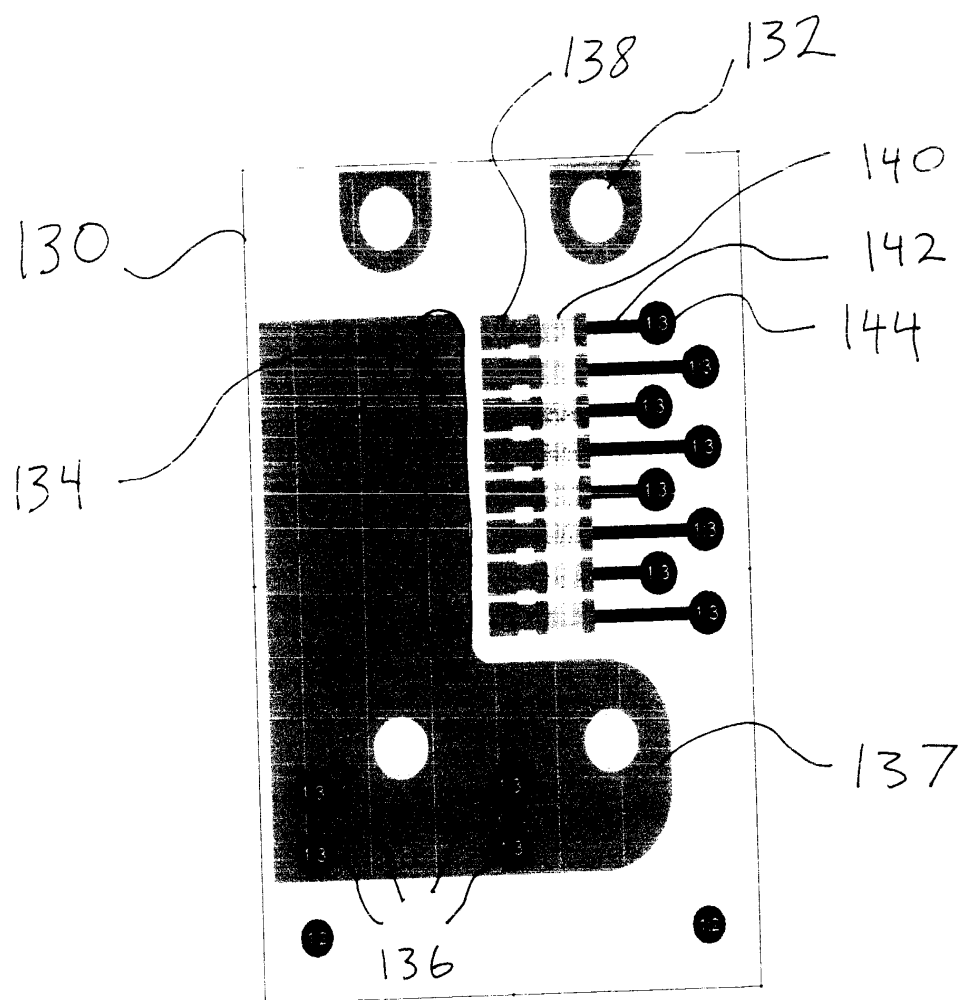


FIG 13

FIG. 14A

13

100

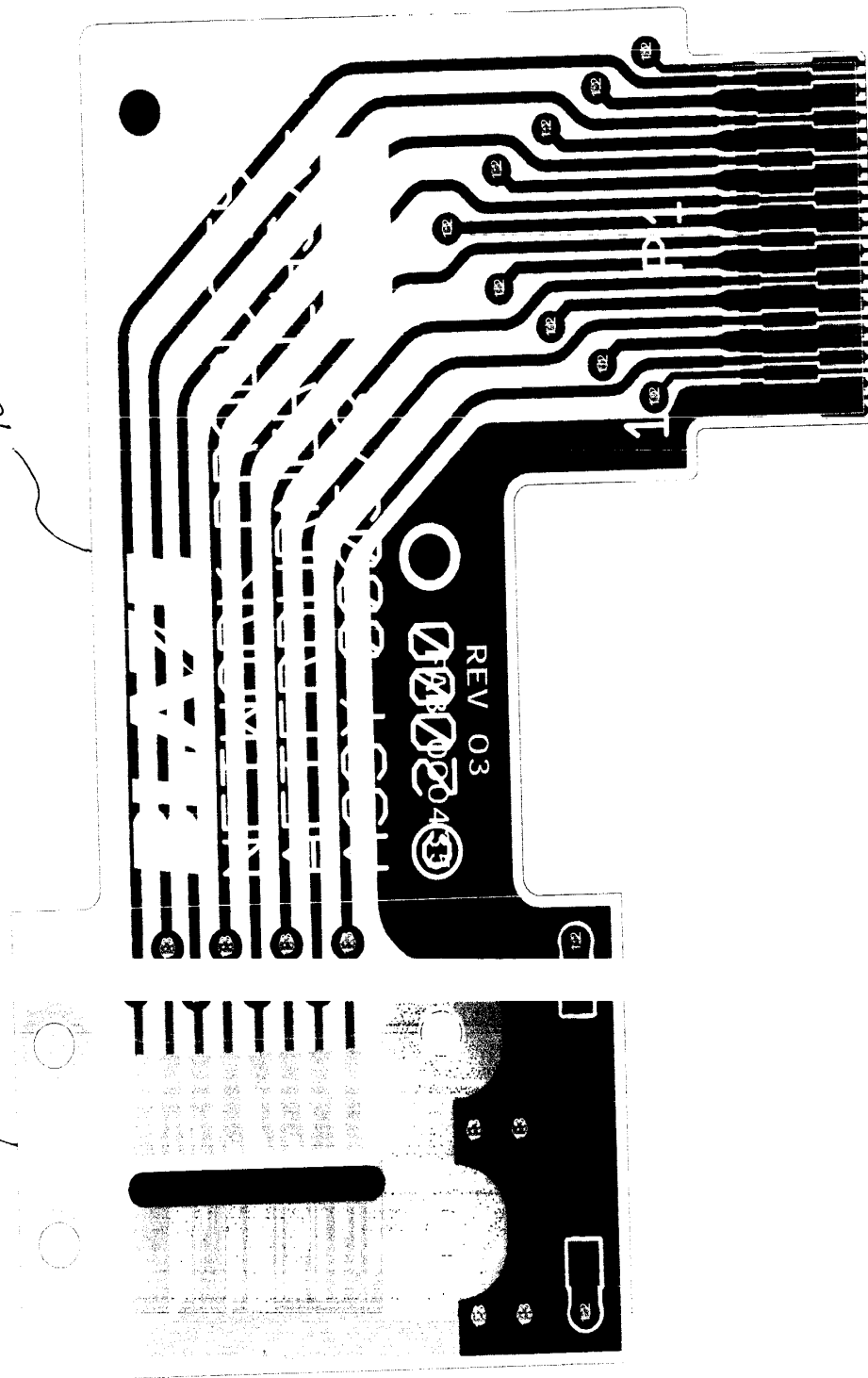


FIG. 14A

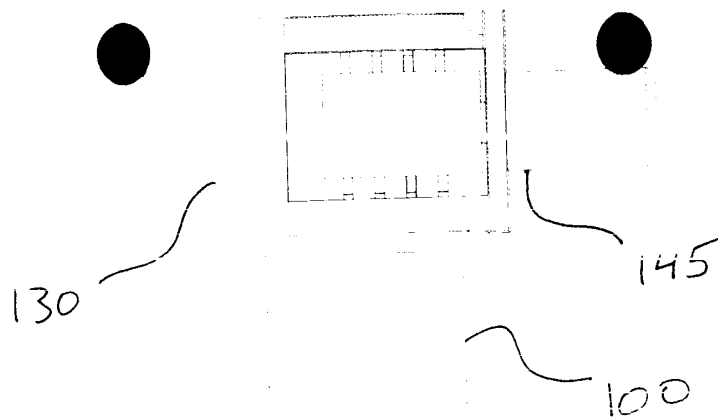


FIG. 14B

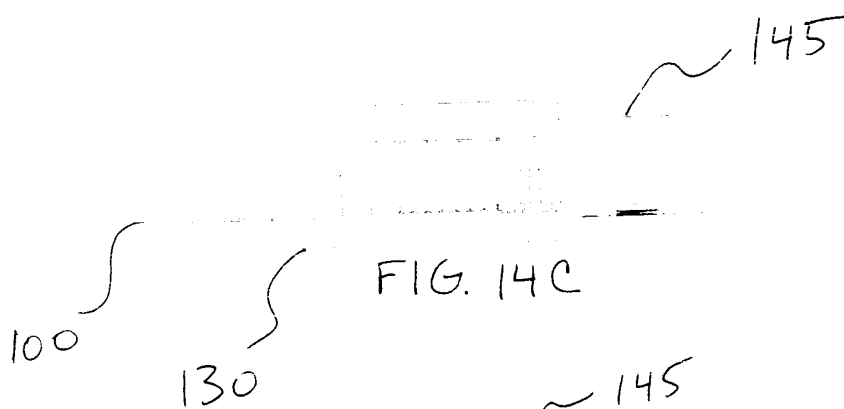


FIG. 14C

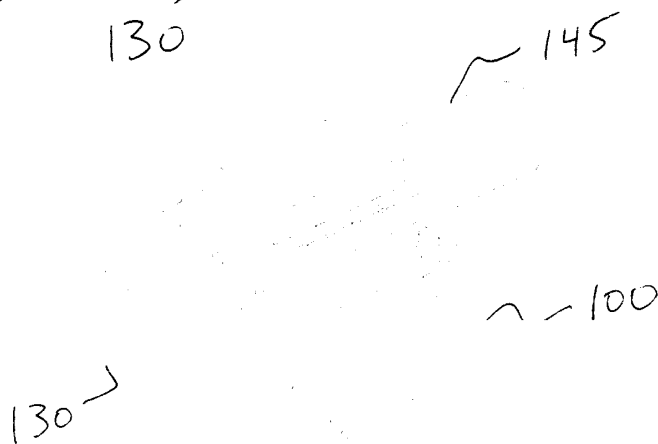
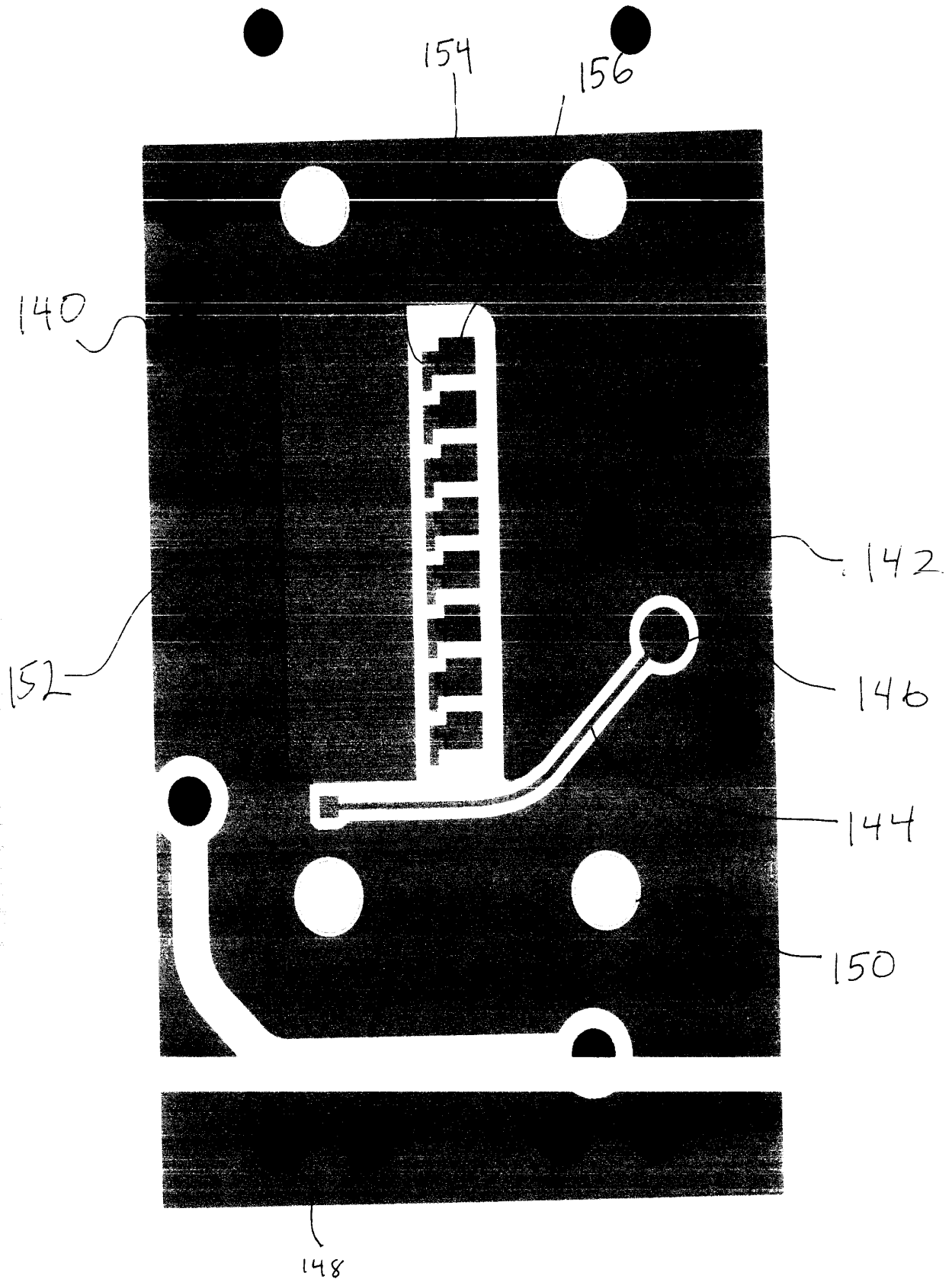
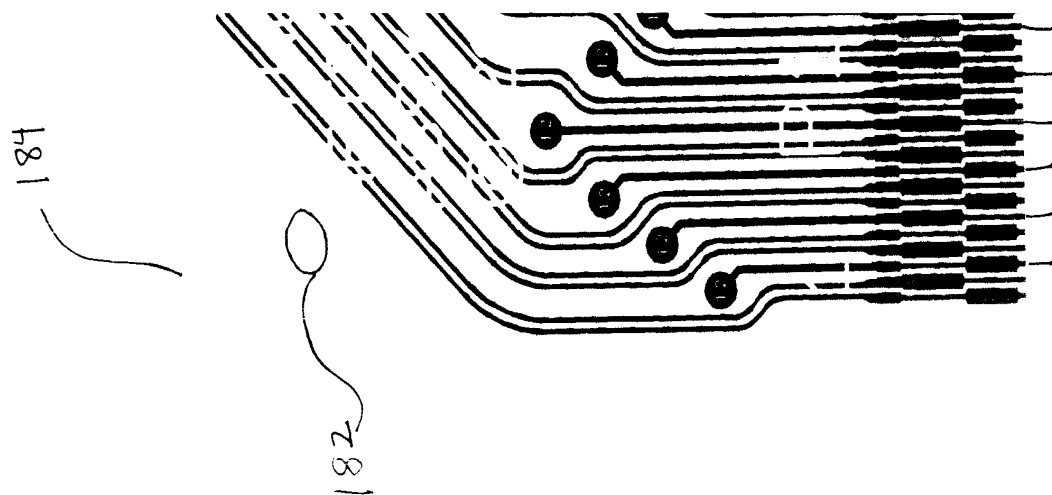
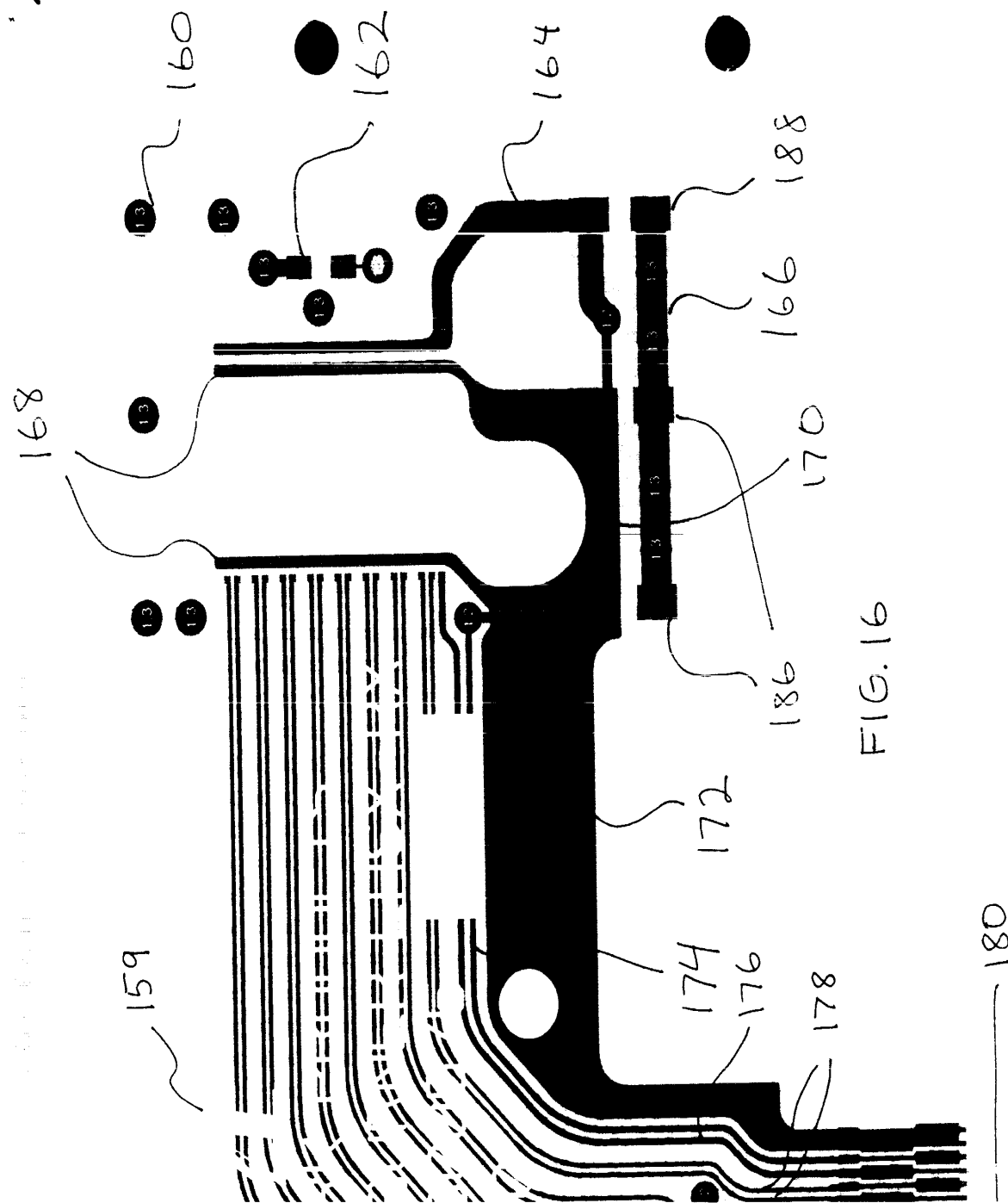


FIG. 14D





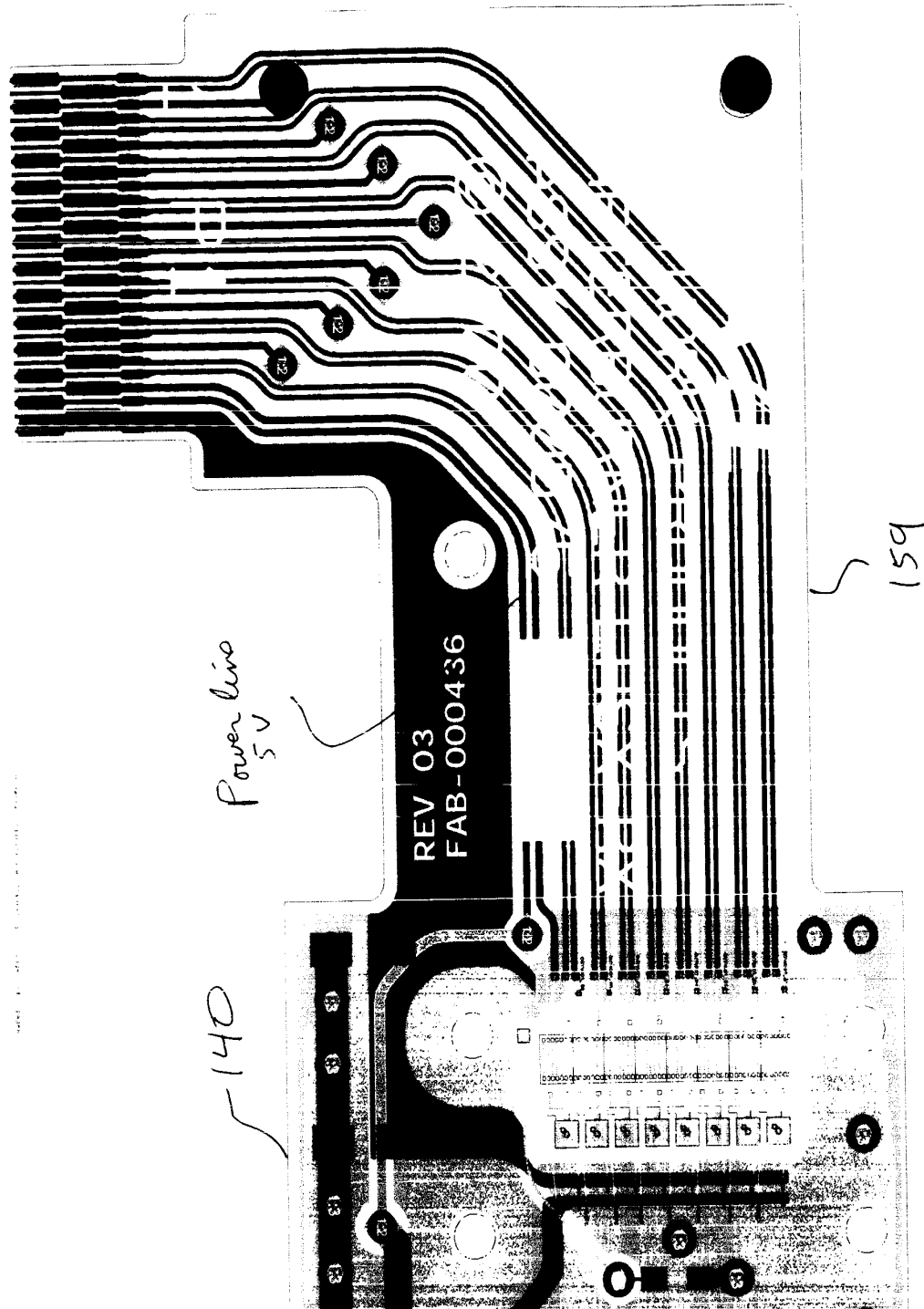
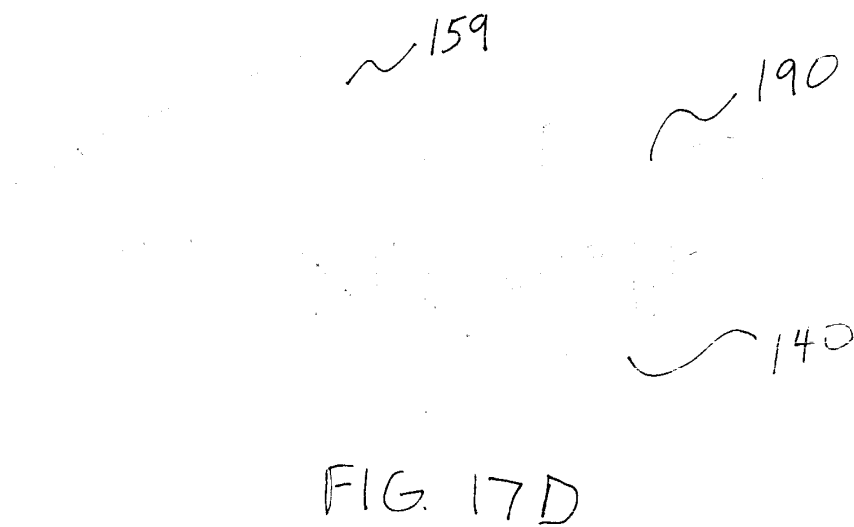
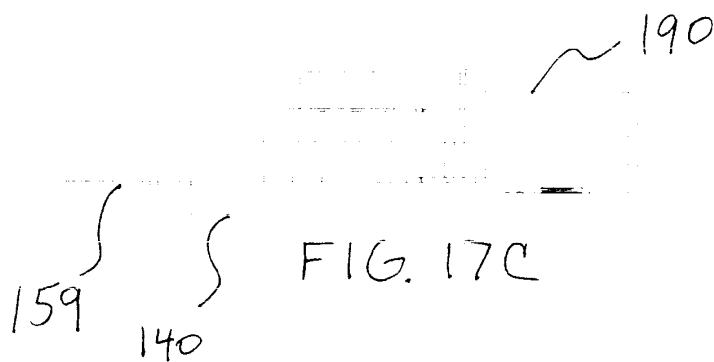
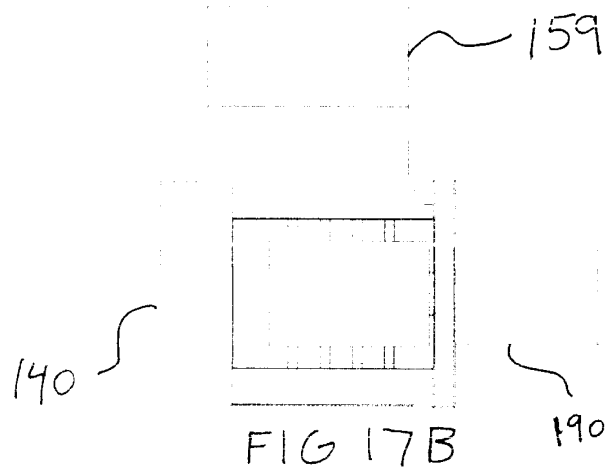


FIG. 17A



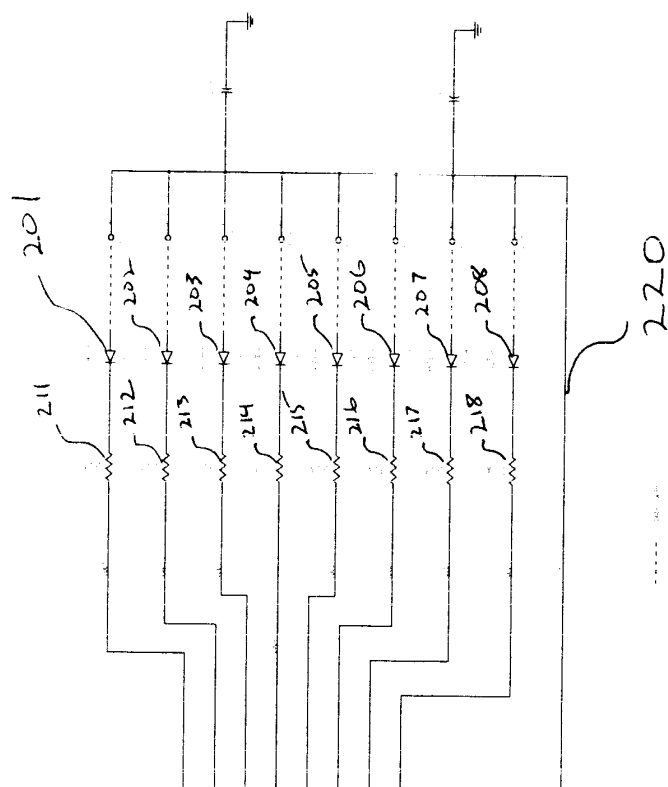


FIG. 18